

## MONTHLY NOTICES

OF THE

## ROYAL ASTRONOMICAL SOCIETY.

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No. 7

SIR DAVID GILL, K.C.B., F.R.S., PRESIDENT, in the Chair.

George Bruford, Tolland House, Shoot-up-Hill, Cricklewood,  
N.W.;

Reinold John Jauget, Captain, Mercantile Marine, 53 Chatsworth  
Street, Sunderland; and

James Hopwood Jeans, M.A., F.R.S., formerly Fellow of Trinity  
College, Cambridge, Professor of Applied Mathematics,  
Princeton University, New Jersey, U.S.A.,

were balloted for and duly elected Fellows of the Society.

The following candidates were proposed for election as Fellows  
of the Society, the names of the proposers from personal knowledge  
being appended:—

Charles Edward Adams, M.Sc., A.I.A. (Lond.), Chief Computer,  
Survey Office, and Secretary, Surveyors' Board, Wellington,  
New Zealand (proposed by James McKerrow);

Rev. David Ernest Llewellyn-Jones, The Vicarage, Maindee,  
Newport, Monmouthshire (proposed by Major-Gen. H. H.  
Lee);

Percy Mayow Ryves, Farmer, 41 Miguel Servet, Zaragoza,  
Spain (proposed by the Rev. D. Higham Sparling);

Rev. Frederick William Walker, Vicar of Ellerslie-cum-Epson,  
Auckland, New Zealand (proposed by J. T. Stevenson); and

Hugh Williams, Lieut. R.N.R., Senior Assistant Marine  
Surveyor and Water Bailiff, Mersey Docks and Harbour  
Board, Halwyn, Cecil Road, Prenton, Birkenhead (proposed  
by William J. S. Lockyer).

Ninety-three presents were announced as having been received since the last meeting, including, amongst others:—

Publications of the Astrophysical Laboratory, Groningen, No. 20; J. C. Kapteyn and W. De Sitter, Parallaxes of 3650 stars, presented by the Laboratory; A. S. D. and E. W. Maunder, *The Heavens and their Story*, presented by the authors; Oxford University Observatory, *Astrographic Catalogue*, vol. vi., presented by the Observatory; *Australian Meteorology*, by Dr. W. J. S. Lockyer, presented by the Solar Physics Committee.

*Astrographic Chart*; 36 charts, presented by the Royal Observatory, Greenwich; Photographs of the 60-inch reflector of the Mount Wilson Observatory (6 prints), presented by Dr. G. W. Ritchey; Drawing of the lunar crater Archimedes, presented by the Rev. F. B. Allison.

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*Solar Parallax Papers. No. 7.*

*The General Solution from the Photographic Right Ascensions of Eros, at the Opposition of 1900.* By Arthur R. Hinks, M.A.

§ 1. Earlier papers of this series have dealt with the construction of the standard photographic catalogue of stars (*M.N.*, 1906 June, Nov., 1907 Dec.). This catalogue is now complete, with the exception that it may be possible to incorporate the Algiers results before publication. It contains about 6000 star places; and it serves as the standard to which I have reduced all the photographic and micrometric observations of Eros.

§ 2. *The Published Photographic Observations.*—These are found in Paris Circulars 10–12; they are given in a form which is apparently uniform, but is in reality not quite so. It may be convenient to mention the exceptional cases.

The epochs are in general the mean epochs of observation. But in the case of Bordeaux they have been antedated by the aberration time.

The positions of the planet are in general geocentric. But in the cases of Bordeaux, Northfield, and Toulouse the reductions to the Earth's centre have not been applied.

The positions are in general reduced to apparent place. But in the case of Toulouse the whole effect of the aberration of light has been accidentally omitted from the published positions.

The quantities in the columns headed “parallax” are the *corrections*, which have in most cases been already applied to the quantities in the preceding columns.

The quantities ( $O - C$ ) are from comparison with the ephemeris of Circular 9.

The positions of the planet are referred to a number of star systems differing slightly from one another. In most cases they have been reduced to standard by the process described in § 4.